

Index to Volume XXXI—1947

ANTENNAS — GENERAL

Antenna for 7-Mc. DX, An (Schellenbach).....	32, June
Balloon Antenna Rides Again, The (Bonadio)...	60, Mar.
Horizontal vs. Vertical — 80 Meters.....	43, Aug.
One-Man Skyhook, A (Lewis).....	19, July
Sturdy 55-Ft. Skyhook, A (Gardner).....	28, Oct.

ANTENNAS—ROTARY BEAMS

All-Metal Array for 6 and 10, An (Tilton).....	52, July
Antenna That Multiplies by 50, An (Kmosko)...	50, Sept.
Bamboo Poles for Beam Elements (Shannon)...	24, Nov.
Building Your Own Beam Rotator (Klar).....	26, Nov.
Doghouse in the Sky (Marcellus).....	63, Oct.
Element Spacing in 3-Element Beams (Erhorn)	37, Oct.
Fundamental Beam Patterns (Cleckner).....	23, Mar.
Gain vs. Element Spacing in Parasitic Arrays (Rowe).....	30, Apr.
"Halo" for Six Meters, A (Stites).....	24, Oct.
Hydraulic Antenna Rotator, A (Lotter).....	36, Sept.
Lightweight Boom Construction for 28-Mc. Beams (Anderson).....	24, Nov.
Multielement Radiators in Close-Spaced Arrays (Carmichael).....	24, June
New Approach to Direction Indicators (H & K)	48, Dec.
Novel Ten-Meter Beam, A (Handel).....	59, May
Position Indicator for Directional Arrays, A (Tomczak).....	61, Aug.
Projection-Type Beam Direction Indicator, A (Brawley).....	27, Nov.
Put That Beam Up to Stay (Heidt).....	28, Nov.
Rugged Wall Bearing, A (H & K).....	68, June
Simple Rotatable Antenna for Two Bands, A (Long).....	22, Jan.
Stacked Array for 6 and 10, A (Tilton).....	38, Feb.
V.H.F. Antennas — Horizontal or Vertical?....	35, Jan.
4-Element 14-Mc. Beam, A (Van Brunt).....	22, Nov.
40-Pound 14-Mc. Four-Element Beam, A (Nose)	35, Dec.

ANTENNAS — TRANSMISSION LINES

Center Joint for 300-Ohm Doublet (H & K).....	74, Feb.
Choosing a Transmission Line (Purinton).....	39, June
Coupling to Flat Lines (Goodman).....	26, Aug.
Cutting Matching Stub (H & K).....	62, Apr.
Do It Inductively (Taich).....	58, Sept.
Flat Lines and Loading.....	34, Jan.
Matching the Line to the Ground-Plane Antenna (McWatters).....	56, May
"Micromatch," The (Jones, Sontheimer).....	15, Apr.; 45, July
Standing Wave Indicators (H & K).....	60, Jan.
Standing-Wave Meter for Coaxial Lines, A (Pattison, Morris, Smith).....	41, July
Tuned-Line Matching Transformer, A (Gadwa)	36, Jan.
"Twin-Lamp," The (Wright).....	22, Oct.
Useful Feeder Support (H & K).....	49, Dec.
Versatile Antenna Coupler (H & K).....	62, Oct.

AUDIO FREQUENCY EQUIPMENT AND DESIGN

(See also, "Frequency Modulation")	
Audio Filters for the Speech Amplifier (Galin)...	17, Nov.
Direct-Reading Modulation Meter, A (Atchley, Fricks).....	55, Feb.; 64, Mar.
House Cleaning the Low-Frequency 'Phone Bands (Grammer).....	24, May
More on Speech Clipping (Smith).....	18, Mar.
Overmodulation Splatter Suppression (Villard)	13, June
Second-Harmonic Filter for 75-Meter 'Phone Transmitters (H & K).....	55, July
Simple Volume Compressor, A (Dietz).....	43, Oct.
Versatile 'Phone Monitor (H & K).....	55, July
120-Watt Modulator and Speech Amplifier, A (Chambers).....	13, Aug.

15-Watt Modulator for Low-Power Work, A (Geyer).....	28, Jan.
40-Watt Modulator with Cathode-Coupled Driver, A (Lattin).....	42, Apr.; 12, June

BROADCAST INTERFERENCE

Curing Interference to Television Reception (Seybold).....	19, Aug.
Inexpensive BCI Cure (H & K).....	61, Mar.
Interference with Television Broadcasting (Grammer).....	24, Sept.
More on BCI.....	61, Mar.
Multiple Wavetraps to Cure BCI (H & K)....	65, Nov.
New BCI Circulars.....	74, May
Proposed Changes, 42-88 Mc.....	32, Oct.
Television Interference.....	33, Aug.
TVI (Editorial).....	11, Nov.
V.H.F. B.C.I. (Editorial).....	11, June

COMMUNICATIONS DEPARTMENT

A-1 Operator Club.....	70, Jan.; 76, June; 66, Dec.
Cheer by Radio.....	66, Jan.; 64, Aug.
Code Practice on 28 Mc.....	65, Jan.; 78, Feb.; 81, Sept.
Directory of Active Nets.....	82, Feb.; 74, Apr.; 78, Nov.
Frequency-Measuring Tests.....	65, Jan.; 80, May; 81, Sept.
Meet the SCMs.....	W71WU, 67, Jan.; W1HRC, 83, Feb.; W8PNQ, 72, Apr.; W4FLS, 76, May; VE7WS, 77, June; W5HX1, 66, July; W8SCW, 68, Aug.; W8JMJ, 82, Sept.; W1AZW, 69, Oct.; W6GC, 80, Nov.; W9GZD, 67, Dec.
Message Pushers Club.....	79, Sept.
New ARRL Section — Yukon.....	83, Feb.
Official Experimental Stations.....	66, July
Official Broadcast Stations.....	79, May
Passing the Gavel.....	77, Nov.
Poll of Operating Interests.....	64, Jan.; 71, June
SCM Elections.....	83, Feb.; 72, Apr.; 77, June; 69, Aug.; 73, Oct.; 68, Dec.
Training Aids.....	68, Mar.; 77, May; 73, June; 68, Aug.; 82, Sept.; 71, Oct.; 80, Nov.
YLs — and Where to Find Them.....	79, Feb.

CONTESTS AND OPERATING ACTIVITIES

CD Parties.....	66, Jan.; 74, Apr.; 65, July; 70, Oct.
Field Day, 1946.....	45, Feb.
Field Day, 1947.....	33, June; 78, Sept.
Fifth Annual ARRL-Member Party.....	49, Jan.; 68, Apr.; 44, July
Get-Acquainted Party, 1946.....	76, May
International DX Competition.....	16, Jan.; 52, May; 56, June; 54, Nov.
Navy Day Receiving Competition, 1947.....	52, Oct.
Navy Day — 1946.....	34, Mar.
New DXCC Award.....	69, Mar.; 64, July; 69, Oct.; 79, Nov.
Postwar Countries List.....	49, Feb.; 64, July
Sweepstakes, 1946.....	81, Feb.; 51, June
Sweepstakes, 1947.....	47, Oct.
VE-W Contest.....	56, Apr.; 65, Aug.
V.H.F. Marathon.....	41, Jan.
V.H.F. Relay and QSO Party.....	70, May; 68, Dec.
WAS Award.....	68, July
West Palm Beach Radio Club Int'l. V.H.F. Trophy.....	67, Aug.
WPR Certificate.....	66, Apr.
YL WAS.....	79, Feb.; 65, Dec.

CONVENTIONS

Delta-West Gulf Divisions.....	42, Aug.; 146, Oct.
Hudson Division.....	46, Sept.
Massachusetts State.....	59, June
Midwest Division.....	23, May
New England Division.....	12, Oct.

New Hampshire State	12, Oct.
Southeastern Division	26, June
Southwestern Division	12, Oct.

EDITORIALS

Accomplishments Old and New	9, Jan.
Breather	13, Feb.
Come Eleven	11, May
Change	11, Sept.
Ho for 420 Mc.	11, May
Long Faces	11, Oct.
Nippers	11, July
Public Relations Consciousness	11, Aug.
Reserve Drills	12, Oct.
Should We Have a Class D License?	11, Mar.
Sick Signals	11, May
Substitution of Components	11, Sept.
TVI	11, Nov.
V.H.F. BCI	11, June
Wanted: A Second Spectrum	11, Dec.
Welcome Hand, A	11, July
World Conference, The	13, Apr.
You & Who Else?	14, Feb.

EMERGENCIES AND EXPEDITIONS

AAU Marathon	78, Feb.
Amateur Radio Aids Rescue of Snowbound Motorista	70, Jan.
Amateur Radio Helps To Save a Life	72, Oct.
Atlanta Hotel Fire	66, Mar.
Emergency at 50 Below	70, Apr.
Florida Hurricane Emergency	69, Jan.
Florida Storm Emergency	65, Dec.
Illinois Emergency	66, Apr.; 74, June
Iowa Storms	66, Apr.; 68, July; 79, Sept.
Kon-Tiki Expedition	71, Mar.; 68, Apr.; 67, Aug.; 69, Dec.
MacMillan Arctic Expedition	66, Aug.
Maine Emergency	69, July
Michigan Flood	72, June
Mississippi River Flood Emergency	67, Dec.
Nebraska Floods	83, Sept.
Norfolk Hams Ready	80, Sept.
Palmyra Island Emergency	67, July
Quebec Amateurs and Ice Floe Rescue	70, Mar.
River Data Flow via Amateur Radio	66, Aug.
Ronne Antarctic Research Expedition	71, Mar.
Texas City Explosions (McKean)	34, July
Texas-Oklaoma Tornado (McKean)	34, July
Vermont Flood Emergency	72, Oct.
Winds, Waves and Snakes (Hayes)	40, Dec.
235 Mc. Used at Boat Races	69, Jan.

FEATURES AND FICTION

Amateurs and the United Nations	46, June
Come Aboard, OM! (Wicks)	44, Oct.
How To Cook a Ham (Stong)	64, Mar.
"I Just Put Up Another Antenna" (Lippman)	66, Feb.
"Listen, Oscar . . ." (Jessup)	47, Nov.
Meteor Detection by Amateur Radio (Villard)	13, July
Painless Reconversion (Cunningham)	56, Sept.
Paradise Regained (Goodman)	56, Dec.
Phone-Band Phunnies	
Little Sir Echo	60, Aug.
Proud Papa	57, Sept.
Coy Cuthbert	65, Oct.
The Bucolic Boy	72, Nov.
The Reluctant Phone Man	57, Dec.
Relax, Men! Use Haywire (Williams)	68, May
Repeater, The (Zimet)	57, Jan.
Staggering Band Theorem (Rapp)	60, Apr.

FOREIGN NEWS

Amateurs and the United Nations	46, June
Argentina	53, Mar.
Austria	144, May
China	45, Dec.
Czechoslovakia	48, Jan.; 45, June; 45, Dec.
December Calendar	57, Apr.
Denmark	110, July
Eire	48, July
Finland	45, June; 48, July

France	51, Aug.
Germany	45, June
Great Britain	53, Mar.; 48, July; 45, Dec.
Guatemala	45, Dec.
Hungary	48, Jan.
Iceland	132, Sept.
Japan	45, June; 110, July; 51, Aug.; 136, Sept.; 53, Oct.
June Calendar	51, Aug.
Korea	132, Sept.
Luxemburg	45, June
Netherlands Indies	45, June; 45, Dec.
New Zealand	69, May
Panama	118, Dec.
Population Summary	53, Mar.
QSL Bureaus	48, Jan.; 33, Mar.; 69, May; 116, Aug.
Rumania	53, Oct.
South Africa	48, Jan.
WIA International DX Contest	136, Sept.
	63, Sept.

FREQUENCY MODULATION

Better N.F.M. Reception with A.M. Receivers (Harrington, Bartell)	38, Nov.
F.M. on Two Meters (Geist)	48, June
Low-Frequency N.F.M. (Goodman)	21, July
L.F.-N.F.M.	28, Feb.
N.F.M. Reception	30, Mar.; 45, Aug.
N.B.F.M. for Voice Communication (Bishop)	20, May
New Phase-Modulation Circuit for N.B.F.M. Transmission, A (Babkes)	11, Jan.

HAPPENINGS OF THE MONTH

Beadle Retires	47, Sept.
Board Matters	45, Apr.
Board Meeting, Special	41, May
Board Meeting, Annual	27, June
CAA Alaskan Openings	47, Sept.
Canadian Elections	49, Apr.
C.A.R.L. Show	32, Oct.
Chief Engineer Sterling	47, May
Circulation Matters	28, July
Election Notice	32, Aug.; 47, Sept.
Election Results	29, Jan.; 42, Nov.
Engineers, Technicians Wanted	43, Nov.
Executive Committee Meetings	112, Aug.
FCC Notes	39, Dec.
Membership Dues	28, July
New FCC Amateur Division	32, Oct.
Overseas Opportunities	36, Feb.
Resignation of Baker	42, Mar.
Staff Notes	42, Mar.; 47, May
Television Interference	33, Aug.
Wanted — Radiomen for Overseas	49, Sept.
W Portables in Canada	114, Aug.
W8WV Decorated by China	47, May

KEYING AND CONTROL CIRCUITS

Basic Principles of Self-Synchronous Repeaters (Gossland)	50, May
Clean-Cut Break-In Keying (Burnett)	27, Mar.
Combination Bias Supply and Station Control System (H & K)	64, Nov.
Electronic Multicircuit Breaker, An (Hanchett)	34, Aug.
Keying the Tetrode Amplifier (Ballou)	46, Dec.
Quiet Break-In System, A (Robinson)	33, Feb.
Untuned Keying Monitor (H & K)	61, Mar.
Versatile Control Systems for Transmitters (Kanyo)	58, Oct.

MEASUREMENTS AND TEST EQUIPMENT

Alignment Aid for V.H.F. (H & K)	59, Aug.
Another Use for the Crystal Wavemeter (H & K)	62, Oct.
Balancing Phase-Inverter Circuits (H & K)	59, Aug.
Band-Edge Markers for V.H.F. (H & K)	62, Apr.
C. W. Transmitter Monitoring (Goodman)	34, May
Direct-Reading Modulation Meter (Atchley, Fricks)	55, Feb.; 64, Mar.
Extending the Range of the CRL Bridge (H & K)	60, Jan.
Finding the Inductance of R.F. Coils (Crotinger)	54, Mar.
Grid-Dip Oscillator (H & K)	58, Aug.

51, Aug.	How Sensitive Is Your Receiver? (Goodman)...	13, Sept.
45, June	"Micromatch," The (Jones, Sontheimer)...	15, Apr.; 45, July
45, Dec.	Neon-Bulb Protector (H & K)...	59, Aug.
48, Jan.	New WVW Schedules.....	14, Apr.; 154, June; 142, Oct.; 142, Dec.
132, Sept.	Standing-Wave Meter for Coaxial Lines, A	
53, Oct.	(Pattison, Morris, Smith).....	41, July
51, Aug.	Transitron Utility Oscillator, A (H & K).....	74, Feb.
132, Sept.	"Twin-Lamp," The (Wright).....	22, Oct.
45, June	Universal Transmission Bridge, A (Tiffany).....	54, Dec.

MISCELLANEOUS

Book Reviews	
Basic Mathematics for Radio Students	152, Feb.
(Colebrook).....	108, Oct.
Highways in the Sky (Shores).....	100, Jan.
Understanding Microwaves (Young).....	46, Aug.
Shorthand Circuit Symbols.....	31, Sept.
Simple L & C Calculations (Najork).....	21, Nov.; 50, Dec.
U. S. Naval Reserve.....	47, Jan.
World-Time Slide Rule, A (Christian).....	

OPERATING PRACTICES

(See also Operating News and Correspondence Section of each issue)

DX Operating.....	51, Feb.
Ending Signals.....	67, Apr.
Golden Rule, The.....	68, Oct.
'Phone-Band Phunnies.....	60, Aug.; 57, Sept.; 65, Oct.; 72, Nov.; 57, Dec.
"Phone Spoutin'" (Sourdough).....	66, June
Power Increases and Their Effects (Smith).....	55, Jan.
Rotten 'Phones (Marks).....	48, Mar.

POWER SUPPLY

Getting the Most Out of Your Mobile Power	
Supply (H & K).....	144, Oct.
Obtaining Higher Voltage from Dual Voltage	
Transformers (H & K).....	48, Dec.
Power Supply for the SCR-211 Frequency Meter	
(H & K).....	72, May
Selenium Rectifier Hints (H & K).....	58, Aug.
Selenium Rectifiers as a Bias Source (H & K).....	62, Apr.
Two-Wire Connection for Bias Pack (H & K).....	60, Jan.
Using Selenium Rectifiers (Berkman, Knochel).....	50, Oct.

PROPAGATION

Bonus for 28-Mc. Observers.....	32, Mar.
Fundamental Beam Patterns (Cleckner).....	23, Mar.
Horizontal vs. Vertical — 80 Meters.....	43, Aug.
How High Is an Inversion?.....	27, Dec.
"Maybe It's Just Conditions".....	30, Feb.
Meteor Detection by Amateur Radio (Villard).....	13, July
Predicting Amateur "Conditions" (Atwood).....	21, Apr.
Sunspots and V.H.F. Radio Transmission (Norton).....	13, Dec.
V.H.F. Antennas — Horizontal or Vertical?.....	35, Jan.
21 Mc. — An Appraisal.....	26, Dec.

RECEIVING

Adapting the Car Radio to a Converter (Barbee)	60, June
Cathode-Coupled Converters for Surplus Receivers (Bender).....	37, Aug.
Combination B.F.O. and A.N.L. for the Sky Buddy (H & K).....	62, Apr.
Eliminating Car Noise in 28-Mc. Mobile Reception (Price).....	37, May
Exit Heterodyne QRM (McLaughlin).....	13, Oct.
How Sensitive Is Your Receiver? (Goodman).....	13, Sept.
Modernizing the Old Receiver (North).....	54, Apr.
New Noise-Reducing System for C.W. Reception (Hings).....	21, June
"Q5-or," The (Rand).....	18, Dec.
S-Meters — So What?.....	29, Feb.
Surplus Conversion	
Calibrating the BC-348 (Prescott).....	69, Nov.
Converting the BC-348-Q (Kersten).....	19, Jan.

Curing Noise-Limiter Troubles in the BC-348-C (Parcel).....	71, Nov.
Further Note on the BC-348-Q (Kersten).....	71, Nov.
Modifying the BC-348-Q (Bernard).....	66, Nov.
Servicing Crystal Filters in the BC-348 (H & K).....	59, Aug.
Triode Mixer vs. Pentode Amplifier (Tannenbaum).....	30, Nov.
"Why Don't They Build Better Receivers?".....	31, June

RECEIVERS

Building a Code-Practice Receiver (Smith).....	28, Dec.
Dialless Converter, The (Creutz, McAvoy).....	34, June
Looking Over the Postwar Receivers	
Collins 75-A.....	54, Sept.
Hallicrafters SX-42.....	48, May
National NC-173.....	46, July
Old Stand-By, The (Knipe).....	42, Feb.

REGULATIONS

Amateur Stations on Army Posts.....	68, Jan.
Atlantic City Conference	
Atlantic City — 1947 (Budlong).....	36, Apr.; 29, May
Breather (Editorial).....	13, Feb.
Commission Reassures Amateurs Regarding Frequencies.....	46, May
Concluding Weeks, The.....	32, Nov.
Conference Notes.....	41, May; 28, June; 39, Dec.
Conference Preparations.....	41, Mar.; 45, Apr.
First Two Weeks, The.....	29, July
Long Faces (Editorial).....	11, Oct.
Review of July.....	32, Sept.
Review of August.....	17, Oct.
U. S. Amateur Proposals.....	47, Apr.
World Conference, The (Editorial).....	13, Apr.
Canada Widens 400 Mc.....	100, July
Changes in Canadian Regulations.....	33, Aug.
Counterpart Calls.....	30, Jan.
FCC Amateur Examinations for 1947.....	30, Jan.
FCC District Changes.....	37, Feb.
K Calls.....	36, Feb.
KZ5 Civilian Amateurs.....	49, Apr.
More License Extensions.....	30, Jan.; 41, Mar.
More Restrictions Removed.....	29, June
Moscow (Budlong).....	25, Jan.
N.B.F.M. Authorized.....	48, Sept.
New License Card Forms.....	42, Nov.
Our Old 2½-Meter Band.....	31, Jan.
Proof of Use Again Waived.....	36, Feb.
Proposed Changes, 42-88 Mc.....	32, Oct.
Regulatory Matters.....	47, Sept.
S-Band Diathermy.....	37, Feb.
Special Temporary Authority.....	32, Oct.
Traffic With Japan.....	36, Feb.
11-Meter Band Changed.....	29, June
400-Mc. Band Widened.....	33, Aug.
80 Opened in Hawaii.....	30, Jan.; 42, Mar.

TRANSMITTING

C. W. Transmitter Monitoring (Goodman).....	34, May
Coupling the VFO to the Crystal Stage (Hunter)	32, July
Device for Breaking Arcs in Transmitters (H & K).....	62, Oct.
Home-Built Multiple Crystal Holder (H & K).....	72, May
Inexpensive Crystal Substitute (Harrison).....	56, July
Power Increases and Their Effects (Smith).....	55, Jan.
Pretuned Bandpass Frequency Multiplier, A... (Silver).....	29, Oct.
Spurious Transmitter Radiations (Conklin).....	66, May
Surplus Conversion	
BC-221 Frequency Meter as a VFO, The (Johnson).....	43, Mar.
Operating the BC-645 on 420 Mc. (Ralph, Wood).....	15, Feb.
Revamping the 150-B for 14-Mc. Operation (Murray).....	22, Sept.
Three-Way Crystal Socket (H & K).....	75, Feb.
Useful Formula for Solenoid Inductor Design (Ricks).....	71, May
Variable End-Linked Coils (H & K).....	64, Nov.

TRANSMITTERS

"Barracks Bag VFO," The (Nichols).....	54, June
Inexpensive Rig for Local Duplex Operation, An (Ralston).....	52, Aug.
"Last-Ditcher," The (Paddon).....	24, Aug.
Medium Power — Living-Room Style (Wagoner).....	37, Sept.
Stabilized 813 Amplifier, A (Smith).....	23, Feb.
Table-Top Kilowatt, A (Grammer, Mix, Goodman).....	13, May
2, 6 and 10 with Crystal Control (Millen).....	66, Sept.

V.H.F. AND MICROWAVES

Band-Edge Markers for V.H.F. (H & K).....	62, Apr.
---	----------

Compact and Inexpensive Superhet for 144 Mc., A (Barbee).....	33, Oct.
Dishing Out the Milliwatts on 10 KMc. (Mcgregor).....	58, Feb.
Four-Twenty Is Fun (Tilton).....	13, Nov.
Improved Receiver for Two Meters, A (Hadlock).....	35, Mar.
Let's Start Right on 1 1/4 (Hadlock).....	22, Dec.
Low-Cost Six-Meter 'Phone (Chambers).....	13, Mar.
Low-Cost 2-Meter Transmitter (Tilton).....	26, Apr.
Operating the BC-645 on 420 Mc. (Ralph, Wood).....	15, Feb.
Put 'Em Push Push (Frenkel).....	39, Jan.
Practical Crystal Control for 144-Mc. Mobile Work (Hertzsler).....	54, Oct.
V.H.F. Crystal Oscillators.....	44, Nov.
2400-Mc. Oscillator Cavity, A.....	65, Oct.

33, Oct.

58, Feb.

13, Nov.

35, Mar.

22, Dec.

13, Mar.

26, Apr.

15, Feb.

39, Jan.

54, Oct.

44, Nov.

65, Oct.